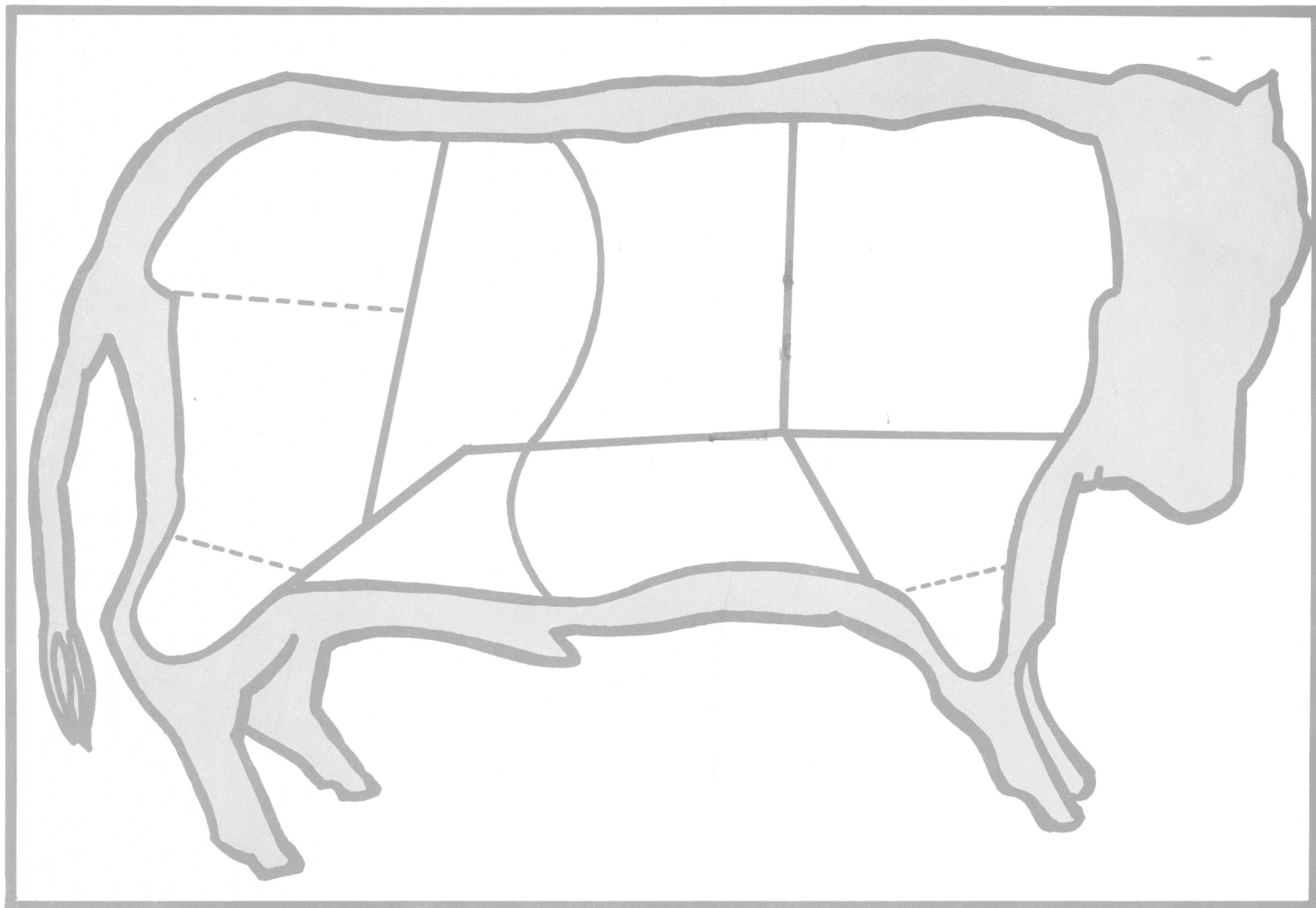


# buying beef

FOR QUANTITY FOOD SERVICE



### Acknowledgement

*This bulletin was prepared by Anita McCormick and Don L. Long, former Extension Specialists in Consumer Food Marketing, and was revised by Lois Simonds, Extension Specialist, Marketing Information for Consumers, The Ohio State University.*

### Source of Information

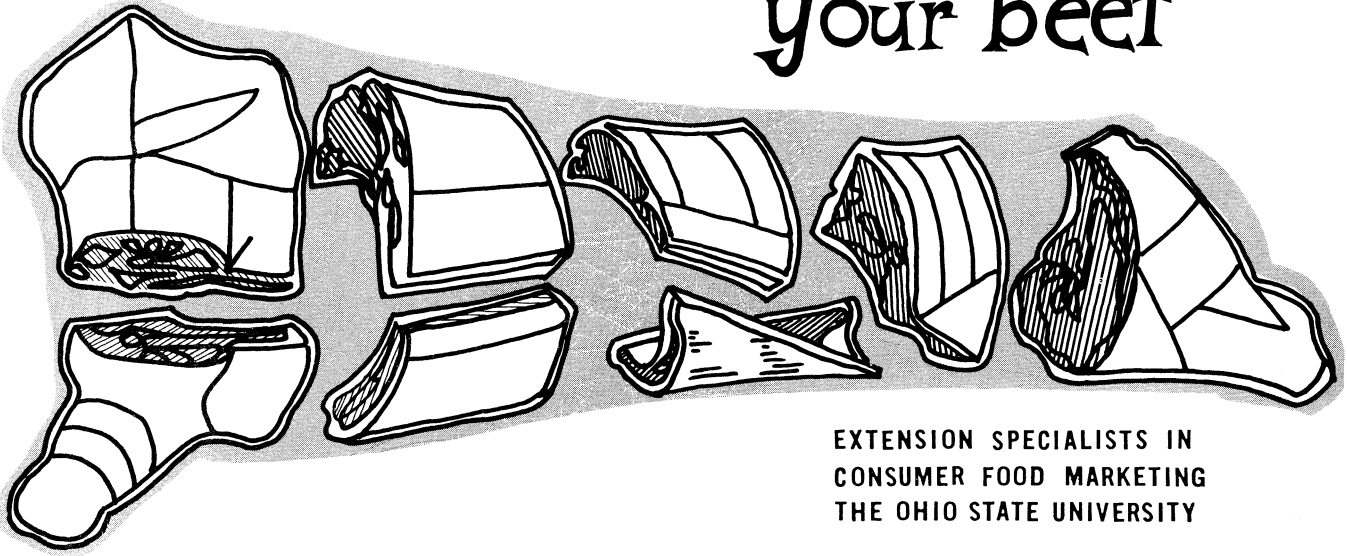
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# Know your beef



EXTENSION SPECIALISTS IN  
CONSUMER FOOD MARKETING  
THE OHIO STATE UNIVERSITY

Meat plays a major role in menu building, and beef is a favorite.

Buying Beef for Quantity Food Service is written for food service operators to use as a reference in selecting beef of a suitable quality, quantity, cut, and form for the intended use.

Included are guides to quality and wholesomeness, quantity to purchase, seasonality of supply, storage requirements, and production methods.

Keys to success in merchandising any beef dish include:

1. Planning for profit
2. Selecting quality and cut to meet specific needs
3. Choosing the appropriate method of preparation
4. Serving the dish in an attractive manner

We hope you will find this manual helpful as you buy beef for your food service operation.

## Plan Your Purchases

- Make menus far enough in advance to plan purchases.
- Estimate approximate number of portions of each cut to be served before next delivery and order accordingly.
- Make and keep a record of beef on hand by cut so you won't overstock.

## Place Your Order

The important thing in placing your beef order is to describe the item needed in such understandable terms that all parties involved in the ordering, filling, and receiving of the order know exactly what item or items you want. Written specifications will help achieve this goal. An order form for beef should provide space for the following information: amount, cut, quality (U. S. Grade and/or Brand), weight, style of trim, unit cost, and total cost. Forms should be printed so that items ordered with their descriptions can be written in the appropriate columns. Buyers who order only by telephone would find it advantageous to use similar forms.

The U. S. Department of Agriculture, through its Meat Grading Service, makes an Acceptance Service available to institution users of meat. This service is designed to assure such persons that meats they purchase comply with detailed specifications approved by U. S. D. A. This service is mainly for large-scale users of meat. Those interested may obtain details from the Meat Grading Branch, Livestock Division, Consumer and Marketing Service, U. S. Department of Agriculture, Washington, D. C.

Meat may be purchased by standardized cuts. This insures uniformity from one purchase to the next. Information on standardized cuts may be obtained from your favorite purveyor or from the National Association of Hotel and Restaurant Meat Purveyors, 100 West Monroe Street, Chicago, Illinois.

Following is a sample order form. Make duplicate copies for each person who will need one.

Figure 1

**DAILY BEEF ORDER FORM**  
Jan's Restaurant, 1234 Main Street, Center City

Date Ordered.....Date Delivered.....

Ordered By.....

All beef must be from either U. S. or local inspected carcasses.

No. Items	Cut and Trim (Described)	Weight	U. S. Grade Or Brand	Chilled Or Frozen	Unit Cost	Total	Received By

## Factors to Consider

When placing the order, much information is needed if you are to receive just what you want. Much of the remainder of this bulletin is devoted to such information.

### Guide to Wholesomeness

An important consideration for the food service operator is the knowledge that the food served is wholesome. For beef, the Federal Inspection stamp is a guide to wholesomeness. The presence of the stamp assures the buyer of beef that the meat was produced from healthy animals, slaughtered and processed under approved sanitary conditions. The Federal Inspection stamp is an assurance that the meat was suitable for consumption when it left the processing plant and that the labels carry no misleading statements. When carcasses have passed the inspection, all wholesale cuts are marked with a stamp that reads "U. S. Inspected and Passed." Local government inspection is similar in purpose. A harmless vegetable dye is used for stamping. The code number on the stamp identifies the packing house.

All meat packing plants that slaughter or otherwise process or manufacture meat or meat products intended for shipment across state lines must operate under Federal inspection.

Meat packing plants whose products do not enter into interstate commerce must meet applicable local inspection regulations where they are in effect.

Many states have state meat inspection laws. Ohio currently operates under a classical voluntary State Meat Inspection program with appropriate regulations governing this activity. The Ohio program is administered by the State Department of Agriculture and inspected products bear an appropriate stamp. Many cities in the state also have inspection regulations.

For the safety of the food service operator as well as his clientele, beef purchased should bear an inspection stamp.



Figure 2—U.S.D.A. Inspection Stamp

## Guides to Quality

Selection of beef for the intended use can mean not only satisfied customers, but also dollars and cents. While high quality beef is important for steaks and roasts, perhaps a lower quality will serve equally as well for stews, casseroles, and such.

Much experience and training is required to judge the quality of beef by looking at a carcass, or a wholesale or retail cut. If you depend on others to judge the quality of beef, an understanding of some of the terms used and the official grades of beef can help you secure the quality of beef you want for your restaurant.

### U. S. Grades

The United States Department of Agriculture's grades are an official yardstick for measuring beef quality—tenderness, juiciness, and flavor. Three things are considered in grading beef—conformation, finish, and quality.

- **Conformation** refers to the shape, form, or general build of the carcass or cut of beef.
- **Finish** includes thickness, character, and distribution of fat.
- **Quality** refers to the anticipated eatability. It is based upon:
  1. marbling
  2. muscle texture
  3. firmness
  4. color of lean
  5. evidences of maturity of the animal at the time it was slaughtered.
- **Marbling** refers to the amount of fat deposited within the lean.
- **Texture** refers to the fineness of grain or size of muscle bundle.

Grades are based on definite Federal grade standards that are applied by highly skilled, impartial, Federal meat graders. The standards are applied in the same uniform manner from season to season and year to year without regard to supply and demand or other economic conditions.

Each grade is suited to certain uses. When planning menus, first decide the type of meat dish to be served, and then select the grade and cut that will provide the satisfaction desired.

The official grades for carcass beef—Prime, Choice, Good, Standard, Commercial, Utility, Cutter, and Canner—can be used to serve you in three ways:

1. as a guide to quality—tenderness, flavor, and juiciness
2. as a guide to method of preparation
3. as a guide to cost.

Each grade and its general characteristics are as follows:

- **U.S.D.A. Prime**—the lean is highly marbled; usually very tender; outside fat may be excessive.
- **U.S.D.A. Choice**—the lean is moderately marbled; generally tender; amount of outside fat is variable.
- **U.S.D.A. Good**—lean contains little or no marbling; tenderness is quite variable; very little outside fat.
- **U.S.D.A. Standard**—lean contains little or no marbling; tenderness is quite variable; very little outside fat.
- **U.S.D.A. Commercial**—beef produced from older animals; may be highly marbled but generally lacks tenderness due to maturity; outside fat variable.
- **U.S.D.A. Utility**—very little marbling; lacks tenderness; very little outside fat; used largely for processing.
- **U.S.D.A. Cutter and Canner**—used exclusively for processed meat items.

There is some variation in tenderness and flavor within grades, but they are still a useful guide in buying.

### How to Identify the Grades

The Federal Grade Stamp, in the shape of a shield, is on each primal cut of U.S. graded beef. About half of our beef is Federally graded. The grade name and the letters U.S.D.A.—meaning United States Department of Agriculture—are enclosed in the shield. Only official meat graders of the U. S. Department of Agriculture are authorized to use the stamp.

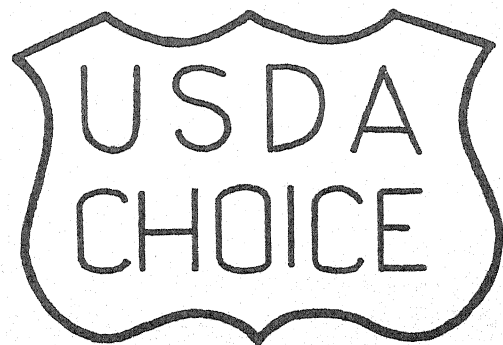


Figure 3—U. S. Grade Stamp

Forms of Beef

The Food Service Operator may buy beef in several forms—by the carcass, side, quarter, primal or whole-sale cut, and in boneless fabricated or portion controlled cuts. The form best suited to any food service operation depends on several factors. These include:

- amount and kind of storage facilities
- regularity of delivery service
- skill of available labor
- variety of beef included on the menu
- type of clientele
- amount and kind of cutting equipment available

Carcass Form

Under normal conditions of supply and price, the food service operator will find the initial cost per pound is usually less in carcass form than in any other way. However, there are several other questions to answer before making the decision to buy carcass beef. Some of these are:

- Does the available personnel have the necessary skill to cut the carcass product into desired size of pieces and to avoid unnecessary waste, thus making the maximum number of servings?
- Can you really determine the cent-per-pound cost of each cut?
- Can you use each cut of the carcass to advantage or would it be necessary to sacrifice some steak and roast material to make stew or ground beef?
- Do you have adequate storage facilities?
- Can you dispose of suet, bones, excess fat, and other wastes?
- Can you make efficient use of all parts of the carcass to meet menu needs?

Primal or Wholesale Cuts

The round, loin end, short loin, flank, rib, chuck, plate, brisket, and foreshank may be purchased in this form to reduce time, labor, and equipment requirements. But—

- Do you have adequate facilities for cutting and processing the primal cuts to eliminate waste, achieve maximum utilization, and control cost and size of portion?
- Does the available personnel have the necessary skill and time to cut the wholesale cut into portion cuts to avoid waste?

Fabricated Cuts

Fabricated cuts—cuts prepared especially for food service—are cut and/or packaged to specifications as to quality, size of cut, size of package, and portion weight. For example, cubed steak: U. S. Choice round—boneless, cut 4 to the pound, packed in 10-pound package

with grade and inspection identified. This is an example of standardized purchasing, or buying under the U.S.D.A.'s Acceptance Service.

Beef purchased in this form—

- may have higher initial cost per pound than primal cuts or carcass beef
- may have lower per serving cost
- provides maximum unit cost control by providing uniform quality and appearance
- eliminates trimming waste
- eliminates the need for a power saw and other expensive cutting equipment
- reduces the amount of refrigeration space needed
- eliminates the need for high priced personnel for cutting carcasses into desired size cuts
- reduces man hours needed in production of meat dishes
- controls portions without weighing or guessing
- with some cuts offers pre-seasoned product

Yield

The number of servings or portions you obtain from a particular cut of beef depends on many things such as the size of the serving and the skill of the person carving the cut. But number of servings or portions from a particular cut depends also on the characteristics of the individual animal. The sample figures in Figure 4 can serve as a guide to estimate the actual pounds of beef from a carcass or in a particular primal cut. Keep in mind that these are average figures. Individual animals vary considerably.

The cutting loss on a beef carcass normally ranges from 20 to 25 percent of the carcass weight. Thus, from 300 pounds of carcass beef, you could expect from 60 to 75 pounds of bone, trimming and cutting loss—leaving from 225 to 240 pounds of usable beef.

Figure 4  
Approximate Yield of Usable Cuts and Products in Per Cent and Pounds from 600 Pound Beef Carcass

Primal Cut	Approx. Pounds	Per cent of Carcass <sup>1</sup>
Chuck	102	17.0
Round	66	11.0
Rib	48	8.0
Sirloin	40	6.7
Porterhouse, T-bone, Club Steak	36	6.0
Rump (boned)	24	4.2
Ground Beef, Stew Beef, Misc.	158	26.1
Total Usable Cuts	474 pounds	79.0%

<sup>1</sup> Approximately 21 per cent, or 126 pounds, of the 600-pound carcass is waste product—fat, bones, and shrinkage.

Source: Figures are based on cutting tests conducted by the Department of Animal Science at The Ohio State University and are considered to be fairly representative.

The guide in Figure 5 can be used to estimate the amount of beef for various cuts to purchase for 100 servings. The amount will vary depending on size of servings, method of preparation, cooking losses, waste due to bone and fat, and the skill of the person carving and serving the meat. If portions other than those of the size described are desired, these figures can be used as a basis for calculation.

Figure 5

Approximate Number Servings Per Pound, Size of Serving, Pounds for 100 Servings and Cooked Yield for Selected Beef Cuts

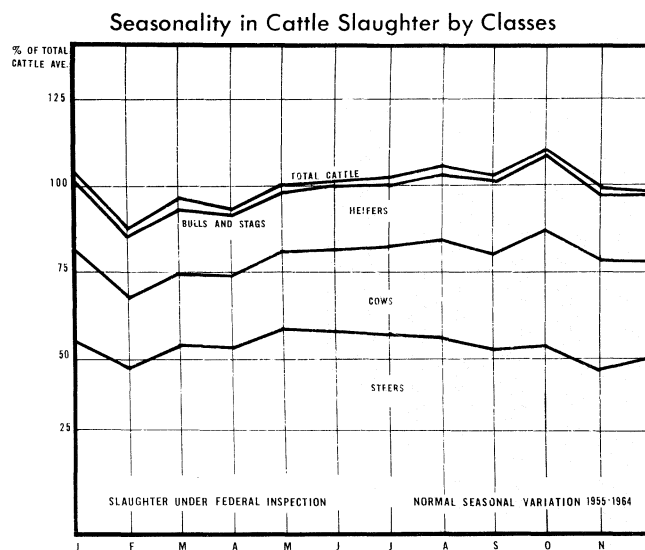
Beef Cut	Size of Serving (Cooked)	Servings Per Pound	Pounds For 100 Servings	Yield Cooked Meat Per Pound as Purchased
<b>Roast:</b>				
Chuck, bone-in	(ounces) 2	4	(pounds) 24¼	0.52
Chuck, bone-in	4	2	49	0.52
Chuck, boneless	2	5	18¾	0.67
Chuck, boneless	4	2	37¼	0.67
Rump, bone-in	2	4	21¾	0.58
Rump, bone-in	4	2	43¼	0.58
Rump, boneless	2	5	17¼	0.73
Rump, boneless	4	2	34¼	0.73
Round, bone-in	2	5	18¼	0.69
Round, bone-in	4	2	36¼	0.69
Round, boneless	2	5	17¼	0.73
Round, boneless	4	2	34¼	0.73
Short Ribs	2	2	50	0.25
Short Ribs	4	1	100	0.25
<b>Steak:</b>				
Flank	2	5	18¾	0.67
Round, bone-in	2	5	18¼	0.69
Round, boneless	2	5	17¼	0.73
Stew meat, boneless	2	5	19¼	0.66
Stew meat, boneless	4	2	37½	0.66
Ground Beef	2	5	17½	0.72
Ground Beef	4	2	34¾	0.72

Based on information from: Food Buying Guide For Type A School Lunches, U. S. Department of Agriculture, Washington, D. C., PA-270 Revised January 1964 pp. 19-20.

## Beef Supply Seasons

The class of cattle slaughtered changes more from month to month than does the total volume. Figure 6 illustrates this fact.

The total supply of beef normally is largest in October and smallest in February. The changes in total beef supply explain, in part, variations in price. Under normal conditions, as the supply of beef increases, the price decreases. So, the lowest average prices of beef are usually found during September, October, and November; and the highest average prices usually occur in February and March. In making plans, the food service operator may want to serve more beef entrees during the season of larger beef supplies when prices usually are at their lowest average level.



Source: U.S.D.A. Agricultural Marketing Service

## Beef Prices

Beef prices usually vary according to grade—the higher the grade, the higher the cost per pound. While prices vary from month to month and from year to year, the following table illustrates the price relationship between grades.

Figure 6

Average Wholesale Price Per 100 Pounds of Beef by Selected Grade, Chicago, 1955-63

Year	Prime <sup>1</sup>	Choice <sup>2</sup>	Good <sup>3</sup>	Standard <sup>1</sup>
1955	\$42.91	\$38.78	\$35.23	\$31.58
1956	40.93	37.88	33.42	30.35
1957	42.03	39.36	36.20	32.93
1958	45.19	45.05	42.15	40.38
1959		45.37	43.27	41.54
1960		44.20	41.75	38.42
1961		41.33	39.40	37.37
1962		44.38	42.90	39.40
1963		41.12	39.60	36.73

<sup>1</sup> 600 to 700 pound carcass.

<sup>2</sup> 500 to 600 pound carcass.

<sup>3</sup> 400 to 500 pound carcass (350-500 pound prior to 1958).

<sup>4</sup> 350 to 500 pound carcass (designated as commercial grade prior to 1956).

Source: Livestock and Meat Statistics, 1962, Statistical Bulletin No. 333, July 1963, U.S. Dept. of Agriculture, Statistical Reporting Service, Economic Research Service, Washington, D.C., p. 267, and 1963 Supplement, p. 131.

## Receive and Care for Purchases

Proper care of beef in your food service operation is important for safety, palatability, and cost control.

- Check and weigh all items delivered against those specified on the order.
- Date each package as it goes into cooler, refrigerator, or freezer. Use package with earliest date first.
- Store fresh chilled beef on large trays, or hung on meat hooks designed for this purpose.
- **Frozen** beef must be kept frozen at a temperature of 0° Fahrenheit or lower.

- Storage temperatures for **chilled** beef should be from 33° to 36° Fahrenheit. The relative humidity should be from 80 to 90 per cent.
- Provide for ample air circulation in the cooler. Do **not** pack cartons tightly.
- Plan menus to have a turn-over of fresh dressed beef in your cooler—
  - Ground beef—daily
  - Steaks—every three days
  - Roasts—every five days
- Beef should be stored away from other foods. Foreign flavors in the fat can often be traced to strong flavored foods stored in the same refrigerator or cooler.
- Aged beef is a term used to describe beef held under conditions of controlled temperature and humidity for a period of time. During aging, the exterior lean turns darker in color. Changes also occur that cause the meat to become more juicy and tender. The extent of the change depends on the length of the aging time. There is usually

some change in flavor along with the increased tenderness. Aged beef usually costs more than fresh dressed beef because of the added cost for refrigeration, for the loss from shrinkage and the additional trimming necessary. Such product should be handled carefully.

## Prepare and Serve

The use of an appropriate method of cooking is essential to bring out the desirable eating qualities of the specific cut and grade of beef you select. In turn, the selection of the “right” grade for the cooking method can mean getting the same number of portions at a lower cost per serving.

Figure 7 is a guide suggesting the generally accepted method of cooking the various cuts of beef by grade.

The flank, plate, brisket, foreshank, and heel of the round should be prepared in the same manner for all grades of beef. These less tender cuts are used for stewing, braising, pot roasting, boiling, or are ground for use in meat loaves or similar dishes.

Figure 7

Suggested Cooking Guide for Selected Beef Cuts by U. S. Grade<sup>1</sup>

Cut	U. S. Grade			
	Prime	Choice	Good	Standard
<b>Round:</b>				
Top	Braise, broil, pan fry, pot roast, or roast.	Braise, broil, pan fry, pot roast, or roast.	Braise, pan fry, pot roast, or roast.	Braise, pan fry, or roast.
Bottom	Braise, pan fry, pot roast, or roast.	Braise, pan fry, pot roast, or roast.	Braise, pot roast, or roast.	Braise or pot roast.
<b>Rump</b>	Roast or pot roast.	Roast or pot roast.	Roast or pot roast.	Pot roast.
<b>Sirloin</b>	Broil, pan fry, or roast.	Broil, pan fry, or roast.	Broil, pan fry, or roast.	Broil, braise, pan fry, or pot roast.
<b>Short Loin:</b>				
Porterhouse and T-bone	Broil.	Broil.	Broil.	Broil, pan fry, or braise.
<b>Rib</b>	Broil or roast.	Broil or roast.	Broil or roast.	Broil, pan fry, braise, roast, or pot roast.
<b>Chuck:</b>				
Arm or Blade	Roast, pot roast, or braise.	Roast, pot roast, or braise.	Roast, pot roast, or braise.	Pot roast or braise.

<sup>1</sup> Based on information from: U. S. Grades For Beef, U. S. Department of Agriculture, Marketing Bulletin No. 15, U. S. Government Printing Office, Washington 25, D. C., 1960.